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Motivations of Public to Private Transactions: An International Study

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Abstract:

This article deals with the motivations of Public to Private Transactions in Europe, USA and Asia from 2000 to 2007. We determine seven main motivations (Tax savings, Incentive realignment, Control, Free Cash Flow, Growth of Prospects, Takeover Defence and Undervaluation). Then, we study which are the motivations of a firm to go private. For this, we first do a univariate study and then we realize a multivariate analysis in order to interplay all the motivations. At the end we determine the profile of all Public to Private for each area geographical. In general, firms which have low perspective of growth, low liquidity, important Free Cash Flow are the three main motivations for a Public to Private. Then we have some specialities for each zone: in Europe (importance of a Family blockholder), in Asia (importance of the level of taxation).

Keywords: Public to Private transactions, CAAR, Premium, wealth, leverage, tax saving, transaction costs

JEL Classification: G32; G34

1. Introduction

The companies have two primary ways that allow them to finance : on the one hand by the auto-financing and the other hand using a public offering or making a leverage (LBO for example). This last technique of external financing is done through their listing. The stock market allows them to find another way to finance them through various techniques such as fundraising, public call for savings.

According to the Financial Markets Authority, in 2006, IPOs accounted for 500 billion dollars in terms of funds raised while firms which go private (PtoP) represented 250 billion dollars. Why do we attend to such proportion of delisting? That is the question we address in the study. In general, why do we attend to delistings? Several reasons can be mentioned:

- ⇒ Exchange gives no longer sufficient liquidity to shareholders.
- ⇒ The bond rating is very theoretical because investors are disinterested.
- ⇒ The company may no longer need the scholarship to increase awareness of its products.
- ⇒ Company can have a good notoriety so it doesn't need to be in quotation.
- ⇒ The companies have made a miscalculation and realize that their IPO would not have occurred.
- ⇒ The interests of shareholders and managers may diverge (Jensen, 1989).
- ⇒ The company incurred costs related to listing too high relative to its turnover.
- ⇒ An unfavourable economic environment does not allow them to find the financing sought.

These several reasons can explain the growing trend of companies which decide to go private. They are grouped under the term of Public to Private transactions. Globally, the country which has experienced for the first time this phenomenon is the United States in the early 80s. The popularity of these operations has been as Jensen (1989) predicted the end of the listed companies for not giving way to companies out of the exchange. This rapid development is explained by the fact that many groups wanted to part with some of their subsidiaries. Europe and especially United Kingdom, pioneer of this phenomenon for the continent has experiences such operations in the mid 80s. It was the second country worldwide to know its first Public to Private transactions. The two pioneer countries of operations of Public to Private (U.S. and U.K.) have experienced increasing continuously during the 80s until the outbreak of various financial scandals in which their development was significant reduced. It is at the end of the 90s, in 1997, their revival is notable. Since, they are increasing.

The introduction if this type of operation applies to all European countries and especially for France. Indeed, the development of Public to Private transactions in France was much later than in the Anglo-Saxon: it is in the late of 90s when the first transaction appeared. As we noted earlier, the economic downturn may affect the development of these operations: the listed companies do not find enough cash, investors are not interested in companies less profitable, they are obliged to go private to avoid a default. Therefore, the various economic crises faced by these companies such as the housing crisis in 2007 can have a significant impact on their development. This observation is verified by Euronext Paris, which accounts for an increasing number of delisted since the stock market bubble. Similarly, small caps with low volume of activity on the stock market face many difficulties in the finance market to obtain some financial resources. In addition, costs of listing on the stock market that supports

small companies are disproportionated to their low capitalization, making their financial structure even more fragile.

Asia is the last continent to discover this phenomenon. Only, in the 2000s and especially in the mid-2000s where the first operations have emerged. This explains the absence of empirical studies on this subject.

Along with this increase in Public to Private transactions, empirical researches have developed particularly in the two founding countries (the United States and United Kingdom). The authors were interested firstly to determine the factors responsible for delisted stock market and secondly to study and evaluate the impact of Public to Private transactions to the shareholders wealth. The main motivations tested and whose significance has been confirmed are the following: Public to Private transactions are undervalued relative to the market average (Weir, Laing, Wright, 2005a) which forces them to leave the stock market. The fact that they go private, firms benefit tax savings (Kosedag and Lane, 2002), they can also resolve the conflict of interest between shareholders and managers (Weir, Laing, Wright, 2005b). Indeed, these two actors have different objectives, their strategies differ which leads mismanagement in the firm. After leaving the stock market, they gain a more concentrated control and efficient which allows them to align the interests of both shareholders and managers (Halpern, Kieschnick and Rotenberg, 1999).

As we have often pointed out, empirical studies are mostly American or English and they are conducted at a national level that is the reason why our work is distinguished by the following reasons:

First, the study is international, the sample includes the Public to Private transactions in the United States, Europe and Asia.

Second, the Asia continent is first for the first time incorporated into a study.

And third, the review period is recent: from 2000 to 2007.

All these reasons, this study may help bring some new elements to the literature on the Public to Private transactions. As emphasized Renneboog and Simons (2008), the literature about Public to Private transactions suffers from a lack of studies on other countries that the United States and United Kingdom.

Following this analysis, the problematic of this research is the following: which are the motivations of Public to Private transactions (it corresponds to one part of the global process of Public to Private transactions).

To study it, a rigorous methodology has been conducted throughout our study.

In a first time, we outline the hypotheses that we will identify the main motivations of Public to Private transactions. The theoretical and empirical literature provide several possible answers (Renneboog, Simons, 2005; Renneboog, Simons, Wright, 2006). For our study we focused on seven factors explaining the delisting of companies which are:

1. Tax saving
2. Incentive Realignment
3. Control
4. Free Cash Flow
5. Growth Prospects

6. Protective Anti-Takeover
7. Undervaluation

In a second time, we have to determine the motivations of Public to Private transactions, two methods were used:

On the one hand, a univariate analysis was performed to calculate the mean difference between the variables used for each hypothesis.

On the other hand a binary logistic regression was performed allowing to take all the variables that are used to study the seven hypotheses interact with each other.

Being jointly pursue these studies provides a more accurate and confirmation of the results of the univariate analysis as was the case for studying Achleitner, Hintenamskogler and Betzer (2008). Note that to achieve a binary logistic regression, we form a control sample using the technique of pairing.

The results can provide a profile of Public to Private transactions from geographical areas:

Europe:

- ⇒ Low Managers share
- ⇒ Important Family Blockholder
- ⇒ Low importance of Corporation blockholder.
- ⇒ Low growth prospects
- ⇒ Low liquidity

United Kingdom :

- ⇒ Low Managers share
- ⇒ Low importance of Family Blockholder
- ⇒ Importance of Free Cash Flow.
- ⇒ Low Q ratio.
- ⇒ Low Liquidity

USA :

- ⇒ Low importance of Family Blockholder
- ⇒ Importance of Free Cash Flow
- ⇒ Low Q ratio.
- ⇒ Low Liquidity

Asia :

- ⇒ Important level of Taxation: a characteristic of Asia
- ⇒ Low Gearing
- ⇒ Low importance of Institutional Blockholder
- ⇒ Importance of Free Cash Flow.
- ⇒ Low Q ratio.
- ⇒ Low Liquidity

The purpose of this article is twofold:

- ✓ To highlight the typical profile of a company from Public to Private.
- ✓ To consider the most relevant variables.

This paper is organised as: Section 1 is the introduction, section 2 is the literature review which presents the main motivations of Public to Private transaction, section 3 deals with the methodology, section 4 presents the descriptive data and section 5 presents the results and we make a conclusion in section 6.

8. Literature review: Motivations of a Public to Private Transaction

Occurring in the context of PtoP transaction and the economic theories, companies withdrew from the stock quote can be explained by many motivations (Renneboog, Simons, 2005).

We illustrate in the following paragraphs the explanation of each reason cited above. At the end of each of them we deduce a hypothesis that emerged from each study that's why the assumptions derived from the comments below will be represented by a box.

A. Tax Saving

Most operations of Public to Private is realized by making borrowing relatively large so by an increase of leverage. Interest deductible is an important source of wealth (Lowenstein, 1985). However, this deduction depends on the tax system in which the operation is realised. Interest deductibility of these new loans created a large tax shield increasing the value of the company before the transaction. For the period from 1980 to 1986, Kaplan (1989b) estimates that the tax saving of PtoP in the United States is estimated between 21 and 72% of premiums paid to shareholders to take a company that withdraws from the listing market. Two variables measure the tax saving: taxation (the level of taxation) and gearing (financial debt/shareholder funds).

Hypothesis 1:

Firms which benefit tax saving are more likely to go private.

B. Incentive realignment

The views from Adam Smith (1776), Berle and Means (1932) on the divergence of interests between managers and shareholders are formalized by Jensen and Meckling (1976). In this model, when a manager assigns a portion of its receivables to outside investors, the marginal costs of pecuniary benefits reduce only a fraction. Finally, manager increases his private interests which lower the value of the firm at the expense principal. The private equity firms have many mechanisms for reward good managers for their good performance when they engage in a Public to Private transaction (Fenn et al., 1995). Private Equity firms (the principal) try to realign the interests of managers (agents) with them. The hypothesis of realignment of interest says that the wealth of shareholders of a PtoP is largely the result of a system to meet the interests of the agent and principal. However the effects of the realignment hypothesis of interest at a high level of managerial participation are contested because of the *entrenchment effect* (Morck, Schleifer, Visny, 1998; McConnell and Servaes, 1990) that may prevent or delay restructuring leaders and also the restructuring of the company (Franks, Mayer, Renneboog, 2001).

We use a dummy variable (managerial ownership) which is equal to 1 if the managers hold more 25% of share of the company.

Hypothesis 2:

Firms where there is a conflict interests between shareholders and managers are more likely to go private.

C. Control

Easterbrook, Fischel (1983), Grossman, Hart (1988) explain why shareholders in individual companies with dispersed ownership can underinvest in monitoring (the problem of free-rider). After an LBO, the property of the company is much more concentrated by giving stronger incentives for investors (the principal) and more information to invest in monitoring management (Maug, 1998; Admati, Pleider, Zechner, 1994). Furthermore, in judging the viability and success of acquisitions famous, DeAngelo, DeAngelo and Rice (1984) argue that investors may have a comparative advantage in the monitoring task (Fenn et al., 1995). By this, it means that the Public to Private transaction can create value by solving the problem of free-rider on the control of managers (the agent). The hypothesis of control argues that the wealth obtained by shareholders depends largely on the outcome of the supervision system imposed by the management team in place. Although the literature on agency costs provides three sources for the wealth of Public to Private transaction, this practice is difficult to make. Lowenstein (1985) explained with the theory of the stick and the carrot: carrot represents the increase shares that managers hold allowing them to enjoy more benefits. The stick is when companies use a massive debt forcing them to reduce benefits that previously were bunched managers in order to manage the company effectively avoiding bankruptcy (Paste, Peck, 2001).

Control is divided into three parts:

Institutional Blockholder: this variable is equal to 1 when this blockholder has at least 5% of share of capital otherwise it is 0.

Corporation Blockholder: this variable is equal to 1 when this blockholder has at least 5% of share of capital otherwise it is 0.

Family Blockholder: this variable is equal to 1 when this blockholder has at least 5% of share of capital otherwise it is 0.

Hypothesis 3:

Firms where capital is dispersed are more likely to go private.

D. Free Cash Flow

Jensen (1986) defines Free Cash Flow as “cash flow in surplus from which is required to fund all projects that have a positive net present value”. In using empirical results on executive pay and performance companies made by Murphy (1985), Jensen argues that managers have incentives to keep resources and to increase the firms beyond its optimal size, hence the name “empire building” which represents the direct conflict with the interests of shareholders. In exchanging debt cons of capital across highly leveraged, credible managers pay their future free cash flow instead of retaining their own interest in project with a negative net present value (Jensen, 1986). At the same time, the risk of bankruptcy due to the recapitalization transaction with the Public to Private is increased for managers if they are not doing the same interest as principal. However, linking debt and motivation of managers, this can lead to results in significant agency costs (Calcagno, Renneboog, 2007).

Free Cash Flow is used to study this hypothesis: the level of Free Cash Flow is approximated by operating income before depreciation and amortization minus tax, interest and dividend payments (Lehn et Poulsen, 1989).

Hypothesis 4:

Firms whose Free Cash Flow are important, are more likely to go private.

E. Growth Prospects

Another analysis was conducted on growth prospects for Public to Private transactions. According to Jensen (1986) companies that have low growth prospects appear as potential candidates to withdraw from the stock quote because they imply a weak management and decision making suboptimal. Lehn and Poulsen (1989) also confirm that the companies withdrew from the quotation have low prospects growth. A variable measuring growth prospects has been found with the ratio of Tobin'Q which measures the relationship between the market value of the firm and replacement cost of assets. A low ratio indicates low growth prospects and significant agency costs whereas a large value indicates substantial growth prospects and lower agency costs.

Q ratio is the variable used: it is defined as market capitalisation deflated by total assets.

Hypothesis 5:

Firms which have low growth prospects are more likely to go private.

F. Takeover defence

Another reason which may lead to the launch of a Public to Private transaction is the fear of being redeemed. Lowenstein (1985) notes that for many companies that withdraw (MBO...), it is a strategic defence against a final hostile offer to shareholders or cons of bidding. For fear of losing their jobs, managers prefer to leave the exchange. Moreover, when managers have a very important part in corporate capital, there is little likely to be bought by others (Jensen, Ruback, 1983). However, maintain control of society can lead managers to find themselves in a difficult situation because they have invested their entire personal wealth in society (Halpern and al., 1999; Hubbard and Palia, 1995). Numerous studies have analyzed this case. We can cite some examples:

- ⇒ In UK, Kennedy and Limmack (1996) found that 40.14% of companies redeemed in the form of traditional buyouts, have replaced their CEO in the first year following the takeover and 25.7% did so during the second year.
- ⇒ In the USA, Martin and McConnel (1991) found that 41.9% of teams leaders leave their jobs in the first year of transaction. Therefore, an MBO protects the leaders of this phenomenon. Management taking a large shareholder of the company to hedge against any possible hostile takeover. This hypothesis of protection against a hostile takeover suggests that premiums reflect the fact that the management team may have the intention to repurchase shares from other shareholders to protect itself against an unsolicited takeover bid.

We use a dummy variable (Prior Takeover Defence) which is equal to 1 when the firm faces takeover one year before going private.

Hypothesis 6:

Firms which have takeover pressure, are more likely to go private .

G. Undervaluation

As a firm represents a “portofolio” (Kieschninck, 1989), there are informational asymmetries between managers and outside investors regarding the maximizing of the value of corporate assets (Roll, 1977; Lehn, Netter, Poulsen, 1990). However, it is impossible for managers who have private information to realize that share price of the company is undervalued compared to the real potential of the latter. This problem may be exacerbated when the listed companies, mostly small, have difficulties in the finance market to grow, which is difficult to attract the interest of investors. This lack of interest for these companies creates a lack of liquidity and involves a reduction in the value of the company which leads to exit the stock exchange (Peristinami, Mehran, 2006).

Lowenstein (1985) explains that when managers represent the main part in control of the company, they can use specific methods in terms of technical and financial accounting to depreciate the stock price before the announcement (Schadler, Karns, 1990). By manipulating

the dividends, they refuse to meet analysts control because managers use the asymmetry information to their advantage.

DeAngelo (1986) finds no evidence in terms of manipulations that could be performed by managers. However, Harlow and Howe (1993), Kaestner and Liu (1996) confirm that in the case of MBO, there are important stock purchases made before going private. They confirm that the purchase is preceded by an informational asymmetry on the part of managers. The hypothesis of undervaluation suggests that the wealth obtained by the shareholders is from the undervaluation of corporate assets.

Moreover, for investors, the increasing of liquidity in integrated shares of the company is a key factor for listed companies (Amihud, Mendelson, 1988). Conversely, the listed company with small market shares will have low liquidity and financial problems and they will have to remain listed. They will consider as main targets out of the document if they have no other means of funding. Therefore, firms in quotation which have low financial perspective and low liquidity will have a high probability to leave the coast and to become private. This explained by the fact that these companies generally have problems of severe informational asymmetry and would not benefit to remain in fellowship (Mehran, Peristianis, 2006).

We use two variables: first PER (Price Earnings Ratio) to estimate the undervaluation and liquidity (assets minus stock divided to financial debt).

Hypothesis 7:

Firms which are undervalued, are more likely to go private

[Insert Table 1 about here]

9. Methodology

After presenting the seven hypotheses that we test, we study the methodology that we apply. As we introduced earlier in the article, two methods have been used to analyze the motivations of transactions which go private, that is to say the Public to Private. We will conduct a univariate analysis in first and in a second time we used a multivariate analysis (binary logistic analysis).

We have to note that for a univariate study and then multivariate analysis, we must develop a control sample which will consist of companies that are in quotation. We can then consider what is the typical profile of a Public to Private transaction (in relation to a listed company).

This method is to conduct a pairing technique, that is to say, the couple studied company: we have to look for Public to Private transaction with a listed company which have the same size (measured either by turnover or by total assets), located in the same industry and is listed at least a year. The choice of this technique is justified by the fact that it allows to assess the probability of occurrence of an event (the fact that a company withdraws from the exchange quotation in our case) and differentiate firms in Public Private companies to remain listed.

As companies control sample obtained by the technique of pairing have the same size and are in the same industry, this method of analysis allows us to know why companies are in the private sector.

a. Sampling: going private sample

The Public to Private transaction, as their name suggest, represent all companies emerging from the stock exchange. For this, we have chosen the database Thomson One Banker, which lists all going private. Three geographical areas were selected: the USA, Europe (Germany, Spain, France, Netherlands, Italy, United Kingdom and Sweden) and Asia (North, Central and South). All these areas cover 82% of the world PtoP population from 2000 to 2007. Thus, the sample covers virtually all PtoP. The choice of an international sample is justified by several reasons:

- ⇒ The previous studies have focused on geographical areas particular national character such as the USA or UK (Lehn, Poulsen (1989); Weir, Laing, Wright (2005)...).
- ⇒ Asia is a geographical area booming for PtoP transactions. It is the first time that Asia has been studied.

Note that seven European countries were selected which are the main players in these operations. Concerning the empirical study, we will voluntarily split between European countries. Indeed, we separate UK and other countries. This choice is explained by the fact that UK was the pioneer country in Europe to develop these operations. It concentrates a large proportion of PtoP. Thus, the voluntary withdrawal of UK to the European sample avoids bias (an over-representation). We will see the results. So we treat UK as a geographical area by itself. The time horizon used is new, it covers the period from January 2000 to January 2007. Most studies have been conducted in the 90's. To develop our sample, we used several data sources: Thomson One Banker, Factiva, Osiris and Datastream. Like any database existing provides all the information necessary for our analysis, we have used different sources of information in order to identify all PtoP from 2000 to 2007: it is to check the observations results.

As we have stated, Thomson One Banker has allowed us to identify all going private over the selected period and selected geographical areas. About 1000 companies had been found. However, all going private are not PtoP transactions, so we treated each company to identify on the one hand if it is no active on the stock exchange and on the other hand, if it did not changed name. For this, we used the Factiva database, various newspapers and websites of companies. The second count of available sources gave us a number of 550 companies. However, taking into account our research objectives, we can conclude that operations satisfying the following conditions:

- ⇒ The PtoP transactions must be identified by a company with a company of the same nationality. This is important in terms of comparison monetary gains.
- ⇒ Transactions must be made, effective in the sense that they must be success. This condition allows us to measure the actual earnings of shareholders and to assess the performance of these companies. The share price of the title companies must be available on the Datastream database.

As Thomson One Banker does not enough financial and government data, we used the OSIRIS database which collects all data from the annual reports of unlisted companies. It is one of the databases from Bureau Van Dijk. This database allows finding many financial and governance indicators. The 550 companies were searched again in the database. For some, we had either missing information or none usable information. In the end, 413 companies were selected. In order to ensure that all companies selected are PtoP transactions, a second analysis using Factiva has been achieved. The 413 companies selected previously were. A

final step is to gather all the share prices of these companies. This is necessary, when we calculate the cumulative abnormal average returns of 413 companies. For this, we obtained the data of release announcement listing of companies on the database Thomson One Banker. The diversity of information sources has forced us to be very vigilant about the verifying the accuracy of data obtained on our study. To summarize, four steps were necessary to achieve the sample:

Step 1: collecting data on Thomson One Banker of going private from 2000 to 2007 for the United States, Europe and Asia. About 1000 firms were selected

Step 2: checkout each company on the Factiva database, on newspapers and the sites of companies. 550 companies were selected.

Step 3: search for financial and governmental information from Osiris. 413 companies were selected.

Step 4: check on Factiva database for the last sample taken. These 413 companies will be part of our sample.

[Insert Graph 1 about here]

b. Control Sample

The development of the control sample is performed based on two essential characteristics, namely the industry and total assets:

- ⇒ **The industry:** This includes the sectors key to the company. This allows us to consider, first, the life cycle of the industrial firm and secondly, between the particular industries in terms of financial structures. The database Thomson One Banker provides the SIC industry code, the pairing was done using it. In most cases, the firm control sample, that is to say the firm control, has been selected by referring to the first two digits of SIC code. In the rare case where no firm reference can not be observed using the first SIC code, the second and third times were used.
- ⇒ **Total assets:** it is a criteria representative of the size factor. We assume that the total assets is a good indicator of company size in the sense that it understands all investors industrial, commercial and financial. Moreover, the choice of this criterion allows us to avoid the biais introduced by the difference in size between firms in the same sector of activity and reflect the fact that SMEs do not have the same behavior as large corporations. Therefore, the firms listed have been selected, that is to say firms witnesses should have the nearest total assets to that of the studied company.

To constitute this control sample, a rigorous methodology must be respected. We are based on a methodology which has already been applied by several authors, such as Weir et al. 2005; North, 2001; Klein and Zur, 2009; Achleitner, Betzer, Hinterramskogler, 2008.

To summarize, the different steps of our methodology are:

1. We select all listed companies whose headquarters are located in the same geographical area than we have in our sample, namely Europe, United Kingdom, the United States and Asia.

2. Our selection is refined with industry. For this, we take all companies that have the same “two-digit SIC”. For some companies, we expanded our criteria using the one-digit SIC.

3. Then to identify pairs of companies of our control sample, we use a criterion of "size". We take the total assets of all remaining companies a year before the announcement of a going private. The company with the smallest standard deviation in absolute value of a Public to Private is selected as the corresponding company.

4. A final test is realized to verify if all the firms selected in our control sample remained at least two years listed after the announcement of a going private.

Our sample is composed of 413 companies: 86 in Europe, 108 in United Kingdom, 171 in the United States and 48 in Asia.

c. Univariate Analysis

Our univariate statistical analysis was conducted using two samples:

- ⇒ Sample 1: it includes all Public to Private of 2000 to 2007 for Europe, the United Kingdom, the United States and Asia. The number of companies amounted to 413.
- ⇒ Sample 2 “the control sample”: it consists of companies that remained listed from 2000 to 2007 for the four geographical areas. A methodology has been followed to fully optimize the development of this sample (company size, industry ...). The number of companies is identical to the sample 1.

The procedure for obtaining the variables for the control sample was the same as that used for the main sample of our study, ie sample 1. A little nuance is to emphasize: we used the OSIRIS database for all financial data of unlisted companies. For the control sample, we used ORBIS which includes all financial data from annual reports of listed companies. So all these variables were identified for both samples. We then compare the average values from the latter to examine to what extent the differences observed empirically validate our hypotheses. To achieve this, we use on the one hand, a parametric test of mean difference and on the other hand a nonparametric test.

d. Multivariate Analysis

Using a binary logistic regression is justified because:

- ⇒ The dependent variable is qualitative, while the independent variables can be either qualitative or quantitative.
- ⇒ The dependent variable takes only two possible values that is to say 0 or 1. When the number of levels of the dependent variable is greater than two, the linear regression becomes multinomial. For our study, we limit ourselves to two levels.

The choice of binary logistic regression can be explained by different reasons which are the following:

- ⇒ When we are in the case where the dependent variable is qualitative, linear regression is not compatible because the conditions of constant variance and normality of residuals were not satisfied.
- ⇒ The logistic regression aims to determine the probability of occurrence of an event. This feature is very useful in determining the motivations of Public to Private transactions in relation to listed companies.

As we stated previously, the dependent variable takes the value 0 or 1. In our study, to test our hypotheses, we compare firms that are delisted (the Public to Private: the PtoP) with firms that remained in stock (control sample) with the dependent variable Y_i which is defined as follows:

$Y_i = 1$ if the firm belongs to the group of companies that are delisted.

$Y_i = 0$ if the firm belongs to the group of companies that remained public offering.

The probability that a company go private can be written as follows:

$$P_i = F(Z_i) = E(Y = 1|Z_i) = \frac{1}{1 + e^{-Z_i}}$$

Where $Z_i = \beta_1 + \beta_2 X_i$

This equation is an expression of the logistic distribution function.

If P_i is the probability that a company goes private is given by the equation above, then $(1 - P_i)$, the probability that it goes not private is:

$$1 - P_i = \frac{1}{1 + e^{Z_i}}$$

We can therefore write

$$\frac{P_i}{1 - P_i} = \frac{1 + e^{Z_i}}{1 + e^{-Z_i}} = e^{Z_i}$$

Thus, if we take the natural logarithm of this equation, we obtain the following result:

$$\begin{aligned}
 Li &= \ln\left(\frac{Pi}{1-Pi}\right) = Zi \\
 &= \beta_1 + \beta_2 X_i
 \end{aligned}$$

It means that L, the log likelihood ratio is clearly not linear in X but also linear in parameters. L is called the logit, hence the name for the type models, logit models.

10. Descriptive Data of Public to Private Sample

A. Industry Composition

The sample is large enough, however, we conduct a study on its industrial composition. For this, Table 2 explains the distribution companies which went private from 2000 and 2007 by sector of activity (from the definition of INSEE¹) and according to geographical areas studied.

[Insert Table 2 about here]

The sectoral distribution of Public to Private shows that the majority of comments are in the industrial sector. In fact, approximately 65% of the sample in Europe are industrial firms, this result is 60% for the United States, 63% for United Kingdom and 70% for Asia. However, the business sector also represents an important weight.

From a general standpoint, the four geographical areas in our sample include 60% of industrial companies.

Note also that the Public to Private European sample are mainly represented by Small and Medium Enterprises (SMEs). We can justify this aspect by the fact that European customs prefer small structures including Small and Medium Enterprises that hold between 1 and 499 employees. Indeed, some laws are in place for the creation of small companies. For example, France makes the creation of micro-enterprise. The link of these companies in Europe is a strong weight in the dynamic industry. The following figures speak for themselves: over 2 651 500 firms in France at December 31, 2006 and only 2,000 are considered large firms (the number of employees exceeds 500).

Unlike the six European countries studied, the United Kingdom is aloof. We see through the statistics of the sample. Indeed, unlike other European countries, the United Kingdom has never bet on SMEs. The family tradition does not play an anchoring role, the business capital is dispersed. The SMEs in United Kingdom are nine times less important than SMEs in Italy and five times less than in France. This under-representation is due to the desindustrialization of the country since the 70s.

¹ French Institute of Statistics

We represent using the following graphs, the shares of Small and Medium Enterprises (SMEs) within each geographic area:

[Insert Table 3 about here]

B. Ownership

We decomposed ownership in twelve categories:

- ⇒ Banks companies
- ⇒ Financial companies
- ⇒ Insurance companies
- ⇒ Industrial companies
- ⇒ Pension funds
- ⇒ Foundation and Research Institute
- ⇒ Public governmental authorities
- ⇒ Family
- ⇒ Employee/Managers/Directors
- ⇒ Private Equity
- ⇒ Other types of shareholders
- ⇒ Other types of private shareholders

The following tables show the distribution of different categories of ownership:

[Insert Table 4 about here]

In general, we find that private equity funds occupy an important place in Asia (Graph 2) as the United States. Indeed, private equity funds in the United States and especially in Asia represent a very important part in the composition of the shareholding of the sample. In Asia, this share rises to 28.13%. According to the Asia Private Equity Review, the evolution of private equity in recent years is considerable.

[Insert Graph 2 about here]

In the United States, the private equity funds represent 24.56% of shareholders. This share is also very important. Unlike the results for Asia, it is not surprising that Private Equity in the United States has developed over many years.

Regarding the family shareholders, it represents a significant share in Europe: it is the only area where it is truly present.

The following graph can summarize all the shares comprising the share of family firms by geographical area:

[Insert Graph 3 about here]

C. Statistics of the sample

We represent in Table 5 the descriptive statistics on the companies in our sample: accounting, performance and cash flow.

For this, we defined four categories: company size, performance, leverage, taxes and cash flows. For each of them, some variables have been selected to illustrate them. This selection yielded the following results:

- ⇒ Size of the firm:
 - Total sales (\$ millions)
 - Total assets (\$ millions)
- ⇒ Performance:
 - Return on assets (ROA)
- ⇒ Leverage and Taxation:
 - Taxes (percentage of sales amount)
 - Gearing (ratio between debt and equity)
- ⇒ Cash Flow:
 - Free Cash Flow

The following statistics are presented as follows: the mean, median, standard deviation, minimum and maximum. This analysis was conducted for each geographic area.

Note that the total assets on average in the United States amounted to 793 million dollars, which is the highest result of our sample. It is also the United States where big firms are more represented. Asia has, in turn, the lowest total assets (average) of our sample. The performance measured by ROA which is the largest in the United States (ROA = 3.8%). That of Europe and the United Kingdom are close enough (Europe: 3.8% UK: 3.5%). Asia has great performance potential.

Leverage effects are the largest observed in the United States and Asia. This effect is measured by the variable "Leverage," which is 1.6 in the United States and 1.5 for Asia. For the debt, Asia would have a relatively similar behavior to that of the United States.

[Insert Table 5 about here]

D. Summary

Following this analysis about the sample, several observations can be given:

- ⇒ Europe differs markedly from the United Kingdom in terms of industrial structure and ownership composition: presence of a significant shareholding consisting of family companies in Europe.
- ⇒ For Asia, several points are worth noting:
 - Growth of sizeable of Public to Private
 - Important Growth of Private Equity
 - Part of the almost non-existent family shareholders

- The large companies are quite numerous
- Highly leveraged

All these characteristics tend to deduct a main conclusion: Asia would behave relatively similar to that of the United States in terms of industrial structure, even features (larger presence of private equity funds, low representation of family shareholding in capital companies ...). We assume that the empirical results will go in the same direction.

11. Empirical Results

a. Univariate results

We present in the following table the results of our univariate analysis. We split the variables that operationalize all of our seven hypotheses developed in the previous section, in two parts and more precisely into two panels. These two panels are:

- ⇒ Panel A: It is dedicated to the ownership and control. It includes three types of variables:
 - Managerial Share
 - Blockholder Control (Institutional, Business, Family).
 - Takeover Defence

- ⇒ Panel B: it includes all the variables measuring the performance. They are nine in number:
 - Taxation
 - Gearing
 - Free Cash Flow
 - Q ratio
 - Q1/Q2
 - Q1/Q3
 - LQ*HFCF
 - PER
 - Liquidity

Two statistical tests were used: t-test and z-test.

We conducted a test of chi-square for dichotomous variables found in Panel A linked to the ownership and control. Regarding other variables grouped in Panel B linked to performance, a Wilcoxon test is used.

i. Europe

On the Panel A, we note that the ownership structure and corporate control in Public to Private in Europe is largely composed of managers and the Family blockholder (Andres, 2008; Faccio and Lang, 2002). This confirms our statistical analysis, where the share of Small and Medium Enterprises (SMEs) is very important. Europe's industrial sector is composed almost 90% of SMEs.

On panel B, we observe that the undervaluation, the growth prospects and the level of liquidity are three elements that characterize highly Public to Private transactions. Indeed, the data show that the growth prospects of the company measured by the Q ratio are much lower for the Public to Private than for companies belonging to the control sample (0.83 against 1.45). The undervaluation is another criterion that qualifies Public to Private. The results are suggestive, 15 for the Public to Private cons 27 for SC². Similarly, the lack of liquidity is also part of the criteria that characterize the Public to Private of other companies.

[Insert Table 6 about here]

ii. United Kingdom

On the Panel A, the Institutional blockholder is a key characteristic of Public to Private transactions in UK (Weir et al., 2005). This is confirmed by the result (0.69) which is higher compared to that observed for other blockholders of the sample from Public to Private. We also note that Institutional blockholder plays an important role for the Public to Private and companies remained in stock exchange. However, we note that this result is lower than that it is observed in Europe. Moreover, the Family blockholder has no a real important role. However, no significance was found. The takeover pressure is in turn significantly higher for Public to Private, they are more subject to hostile or friendly offers, low growth prospects and liquidity in relation to listed companies (0.85 against 1.47 for growth prospects and 1.48 against 2.02 for liquidity) make them ideal takeover targets.

On panel B, the level of Free Cash Flow, growth prospects and lack of liquidity are also three major elements that characterize the Public to Private. The results are broadly similar to those found in the rest of Europe.

[Insert Table 7 about here]

iii. United States

On the Panel A, Corporation and Institutional blockholders are two major elements which characterize Public to Private transaction. We note that the Institutional blockholder is the key control block. It is both the highest of the panel but also the highest compared to other geographical areas. This can be understood by the fact that the Institutional blockholder includes other companies of Private Equity, which are the United States largely developed and invest heavily in these companies. The Family blockholder does not seem to explain PtoP in the United States like in United Kingdom. The takeover is also a feature of Public to Private in the United States. The result is the highest of the four areas. In the case of the United States, we can not invoke the lack of growth that companies fail to achieve its development because it is a country that despite the crisis, is a motor for growth. Nevertheless, we can justify it by the fact that the United States created many companies are made, but many also have financial difficulties and they often buy from other companies. On panel B, we also note that the level of Free Cash Flow, growth prospects, the undervaluation and the level of liquidity are all the four important factors. Note that the results are higher than those we observed in both Europe and the United Kingdom. Moreover,

² SC : Sample Control

leverage is lower for companies in Public to Private than those which are in Stock Exchange. This applies also for Europe and United Kingdom.

[Insert Table 8 about here]

iv. Asia

On the Panel A, the Corporation and Institutional blockholders are both important elements relating to the ownership and control of companies in Public to Private. We find that for Asia, as in the United States, Institutional blockholder is the block which is the most representative. This observation is also justified by the fact of the growing rise of corporate investment in Private Equity. The Family blockholder is not significant. The takeover pressure in Asia is not a decisive factor for companies in Public to Private. This is justified by the fact that the development of Public to Private is still very recent, which limits the supply of heavy redemptions as companies suffer in other areas.

Regarding Panel B, the same conclusion as the previous applies also for Asia. We also note that the level of taxation in Asia for the Public to Private transactions is much higher than other areas. Corporations in Private Public have an important level of taxation than companies of the control sample. In contrast, companies in Public to Private have low levels of leverage over the companies listed. We also note that this difference is most important to our entire sample. Tests for these two variables, taxation and gearing, appear very significant in Asia, contrary to what we observed in other areas.

[Insert Table 9 about here]

b. Multivariate results

In the previous paragraph, we used univariate analysis to test the mean differences between the companies to Private and Public Companies in our control sample with the different variables that we presented. However, the univariate analysis does not take into account the impact of each factor, it does not allow us to consider the interplay of all factors. That is why now, we perform a binary logistic regression to study in detail the motivations: what are the investors's motivations of Public to Private transaction.

Note: the variable names have been shortened due to legibility of tables. Hence the significativity of variables:

T: Taxation
G: Gearing
M: Share of Managers
I: Institutional Blockholder
C: Corporation Blockholder
F: Family Blockholder
FCF: Free Cash Flow
Q: Q ratio
PTI: Prior Takeover Interest
L: Liquidity

Four models were made in order to avoid problems of correlation between variables. They made for each geographical area.

We note that the results we obtain for the binary logistic regression are consistent with those obtained from our univariate analysis. For this, we proceed to some observations.

Model 1 takes into account all variables except the three following: Q1/Q2, Q1/Q3, SQ * HFCF. The results are for all highly significant for the four geographical areas studied. We can draw the profile of a Public to Private transactions and the specifics of each. Generally, a low concentration of control, a high level of Free Cash Flow, growth prospects and a weak undervaluation are the main characteristics of Public to Private transactions face those which remained stock exchange. These characteristics apply to the entire sample. Now we specify the characteristics of each.

Some differences must be noted between geographic areas and in particular with the Asian continent that is characterized by specific and very significant in our model.

Furthermore, we verified the existence of collinearity between independent variables. This statistic is given when performing the linear regression in SPSS. The problem of multicollinearity is present when the index exceeds 15. When it exceeds the threshold of 30, multicollinearity in the sample is very important.

None of our regressions is affected by the presence of multicollinearity between explanatory indicators. The highest statistic equals 11.53 which is below a threshold of 15. The final number of independent variables is 15.

i. Europe

Some remarks are necessary before explain the results.

The overall results corroborate those of the univariate analysis. With binary logistic regression, we have the possibility of interaction between variables, we did not in the previous analysis. We note that all our variables give satisfactory results in terms of significance. This reinforces us in building our model. We observe that variables operationalizing the tax savings are not significant and the variable on the takeover pressure. This non-significance applies to all four models. We find that the power control is very significant for all models with high significance for Family Blockholder (Andres, 2008; Faccio and Lang, 2002). This finding is not checked for other geographical areas, what we observe in the following tables (20 to 22). Indeed, Europe has an ownership structure different from the United States (Faccio and Lang, 2002). Moreover, ownership in the United States and United Kingdom is largely diluted unlike in Europe where there is such a dominant Family blockholder. The only differences between the models tested we may note, are those on the "Performance". Indeed, we find that the variable characterizing the growth prospects are more significant when the model uses the Q ratio that is to say model 1. Model 1 uses the Q ratio is significant at the level of 1% against 5% for the ratios Q1/Q2, Q1/Q3 and SQ * HFCF. Similarly, the level of liquidity is more significant in model 1 than model 3. Model 1 seems to be slightly more efficient than the others.

[Insert Table 10 about here]

ii. United Kingdom

The results of binary logistic regression for the United Kingdom also corroborate those of the univariate analysis. All our variables are significant, even if the Corporation blockholder has a threshold of significance lower than found in Europe (5% against 1%). We also confirm our analysis in the sense that the Family blockholder is not significant for United Kingdom. This can be justified by the fact that the industrial fabric of small and medium enterprises is very low in contrast to Europe.

The Q ratio of our model 1 is not as significant as in Model 1 relative to Europe. However, this model is further distinguished from the other three models in the sense that the significance obtained by the variables of undervaluation and liquidity is better than the others. We also note that model 1 shows better statistical characteristics than the other three (LR Chi²).

[Insert Table 11 about here]

iii. USA

The observed data from the sample of the United States are also in line with the results of the univariate analysis. The results of the U.S.A. sample suggest several remarks. Firstly, all models give very significant results. We can note that Free Cash Flow variable and the Q ratio variable are both significant at 1% level. We also note that different versions of this measure: Q1/Q2, Q1/Q3, SQ * HFCF are also very significant, greater than those observed in the two previous samples (Europe and United Kingdom). Furthermore, we observed that the leverage was lower for companies in Public to Private than those in the control sample. This finding was verified for other geographical areas. However, this difference was not significant neither for Europe nor for the United Kingdom, this observation is the same for the United States. We can conclude that the four models characterizing the U.S.A. sample are all very significant. However, the statistical model 1 is better.

[Insert Table 12 about here]

iv. Asia

The above results for the sample of Asia are very significant for the four models. The level of Free Cash Flow like those of Q ratios in the different variants turn out like for the U.S.A very significant, amounting to 1%. Europe and United Kingdom also had good results but at a level equal to 5%. The Control Block is characterized, as we observed in the univariate tests, by the Corporate and Institutional blockholders, Family blockholder is not significant. Lack of liquidity is a feature of Asian societies in Public to Private with the outcome very significant, amounting to 1%. Also a characteristic of the sample of Asia is the significance of variables operationalizing the hypothesis of the tax savings. Unlike the other three geographic areas in our sample, they are both significant. Our four models are very significant. However, model 1 shows as in the others, better statistics.

[Insert Table 13 about here]

[Insert Table 14 about here]

12. Conclusion

The seven motivations of Public to Private transactions that we identified, have been tested with both univariate analysis and logistic regression with a binary. This allowed us to identify the determinants of these transactions. Thus the results obtained give rise to the following conclusions:

With univariate analysis, we obtain the following results:

=> Panel A, on the ownership and control, has a strong influence on the motivations of Public to Private Transactions :

- o We note that managers are less present in societies emerging from the stock exchange. The variable that operationalizes this hypothesis, entitled "Managerial Share" is significant for all geographical areas studied. This common point is to emphasize whatever the nationality or origin of these companies.
- o Regarding the control blockholders, three categories were distinguished. In general, the control blockholders are less present in Public to Private transactions than those which are remained listed. We note that the presence of the Family blockholder is very poorly represented in different geographical areas except in Europe where the results are superior compared to others. Indeed, we note a result of 0.64 on average for the Family blockholder in Europe against 0.51 in the United Kingdom, against 0.49 in the United States against 0.53 in Asia.

- o The variable on the anti takeover defense of our hypothesis 6 is positive for the entire sample. This means that PtoP are more subject to hostile takeover. However, this variable is not significant and for any of the four areas.

⇒ Panel B includes all the variables measuring the performance of Public to Private. No variables related to the tax savings, which are the level of taxation and leverage, does not prove significant for our sample except for Asia, where the two variables show significant results up to 1%. Even if the results do not prove significant for other geographical areas, we note nevertheless that the level of taxation for PtoP is higher than the remaining companies on the stock market while the leverage is lower for PtoP. This confirms our expectations.

- o Regarding the level of Free Cash Flow and Growth prospects as measured by the Q ratio, our predictions are confirmed: the level of Free Cash Flow for PtoP transactions is higher than that of listed companies and the Q ratio is lower for PtoP. The interactive variable that we introduced (SQ * HFCE) is also significant. We note that the level of Free Cash Flow is more significant for the United States and Asia.

- o Finally, the undervaluation and the lack of liquidity are also significant for the sample, except underpricing for Asia firms which is certainly confirmed by the figures, but not confirmed by the significance.

On binary logistic regression, we obtain the following results :

Note first that in order to perform optimally binary logistic regression in our study, four models were made for each geographical area. The choice of these four models are justified by the fact that the variables that we opted for the Free Cash Flow and the Q ratio showed a strong correlation (Free Cash Flow FCF and SQ *) then (Q ratio, Q1/Q2 and Q1/Q3). The results we obtained confirm exactly those presented earlier in our univariate analysis. The results we get from our study confirm those obtained in previous studies. Indeed, companies that have a higher probability of leaving the stock market have generally an important level of Free Cash Flow and low growth opportunities (Lehn and Poulsen, 1989, Opler and Titman, 1993), they face a problem of conflict between managers and shareholders (Halpern et al., 1999), they are undervalued (Halpern et al., 1999), they have a significant tax saving due to debt (Halpern et al. 1999; Kieschnick, 1998) and finally characterized by strong presence of Institutional blockholder within the control of the company (Weir et al., 2005).

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Definitions of Variables

Table 1: Variables

Names	Variables	Definitions
T	Taxation	Amount of Taxation (in percentage)
G	Gearing	Leverage: ratio between financials debt to shareholder funds
M	Manager Shares	Managerial Ownership (1: when the equity held by managers represents over 25% of shares of the company 0: otherwise)
I	Institutional Blockholder	1: when the share of institutional shareholders is at least equal to 5% of shares of the company 0 : otherwise)
C	Corporation Blockholder	1: when the share of corporation shareholders is at least equal to 5% of shares of the company 0 : otherwise)
F	Family Blockholder	1: when the share of family shareholders is at least equal to 5% of shares of the company 0 : otherwise)
FCF	Free Cash Flow	It is approximated by operating income before depreciation and amortization minus tax, interest and dividend payments (Lehn and Poulsen, 1989).
Q	Q ratio	Q ratio: is defined as market capitalisation deflated by total assets
Q1/Q2	Q1/Q2	Q1/Q2: the Q ratio in the year before going private (at the last published accounts) divided by the Q ratio in the previous year
Q1/Q3	Q1/Q3	Q1/Q3: the Q ratio in the year before going private divided by the Q ratio two years before
LQ*HFCF	Low Q ratio* High Free Cash Flow	LQ*HFCF: is a dummy variable that takes a value of one if a firm had below median Q and above median free cash flow and zero otherwise
Size	Ln (Sales)	
PTI	Prior Takeover Interest	Prior Takeover Interest: a dummy variable which equals 1 if there has been any takeover interest in the year leading up to the PTP announcement
PER	Price Earning Ratio	Price Earning Ratio
L	Liquidity	Ratio of assets less stock on financial debt

Details of Public to Private Sample from 2000 to 2007

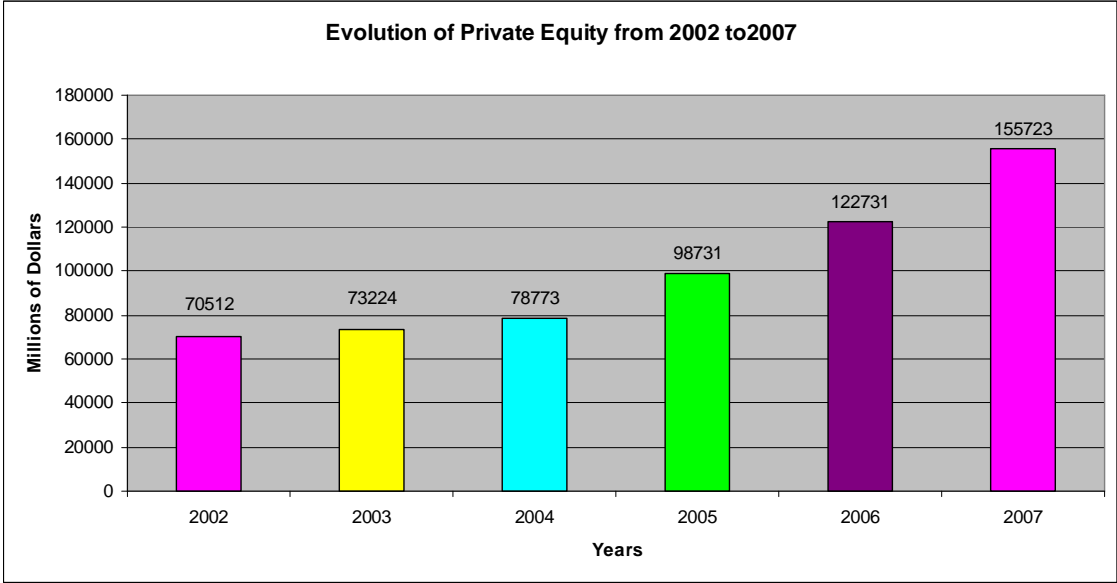
Table 2: Representation of industries in Public to Private sample

	Europe (without UK)	United Kingdom (UK)	USA	<i>Asia</i>
Primary Sector	4%	3%	4%	10%
Industry Sector	65%	63%	60%	70%
<i>Business Sector</i>	31%	34%	36%	20%

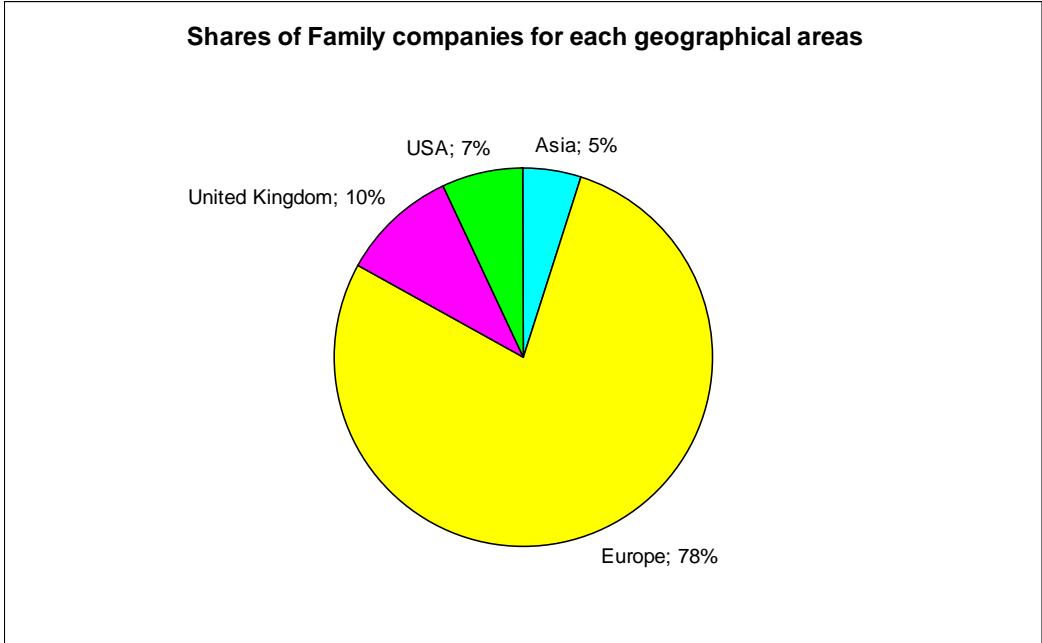
Table 3: Shares representing Small and Medium Enterprises in Public to Private sample

	Europe (without UK)	United Kingdom (UK)	USA	<i>Asia</i>
Small and Medium Enterprises (SMEs)	80%	65%	60%	70%
<i>Society over 500 employees</i>	20%	35%	40%	30%

Graph 2: Private Equity in Asia



Graph 3: Shares of Family companies in the Public to Private sample



Composition of Shareholding

Table 4: Composition of the sample share of Public to Private

This table shows the composition of shareholders, it refers the hypothesis 3 where we decided to establish a threshold to 5% by category of owner. We have elaborated the proportion of each category of shareholders. We identified 12 categories: Banks, Financial Company, Insurance Company, Industrial Companies, Mutual & Pension Fund, Fondation/Research Institute, Public Authorities/States Governements, One or more know individuals or families, Employees/Managers/Directors, Private Equity Firms, Other unamed shareholders, Unamed Private Shareholders.

Categories	Proportion of the sample (=413 firms)			
	ASIA	EUROPE	UK	USA
Banks	3,13%	21,68%	16,85%	4,98%
Financial Company	0,00%	0,00%	3,33%	4,77%
Insurance Company	0,00%	0,00%	2,54%	0,97%
Industrial Companies	56,25%	56,92%	52,54%	53,62%
Mutual & Pension Fund	6,25%	0,00%	5,10%	3,05%
Fondation/Research Institute	0,00%	0,00%	0,85%	0,00%
Public authorities/States Governements	3,13%	0,00%	0,00%	0,00%
One or more know individuals or families	3,11%	15,25%	10,85%	5,04%
Employees/Managers/Directors	0,00%	1,53%	1,70%	1,45%
Private Equity Firms	28,13%	4,62%	6,24%	24,56%
Other unamed shareholders	0,00%	0,00%	0,00%	1,12%
Unamed Private shareholders	0,00%	0,00%	0,00%	0,44%
	100,00%	100,00%	100,00%	100,00%

Descriptive Statistics of Public to Private

Table 5: Descriptive Statistics of Public to Private sample

		Mean	Median	Std.Dev.	Min	Max
United Kingdom						
<i>Firm Size</i>	Total Sales (\$ million)	204	54,7	367	18	2103
	Total Assets (\$ million)	225	77	436	8	4754
<i>Performance</i>	Return On Assets	3,5	5,4	18,4	-250	37
<i>Leverage and Taxes</i>	Taxes (% of Sales)	1,9	1,7	2,9	-3,5	16,7
	Gearing	1,2	1,1	1,50	-1,7	3,1
<i>Cash Flow</i>	Free Cash Flow	4,4	4,3	15,1	-74	52,3
Europe						
<i>Firm Size</i>	Total Sales (\$ million)	514	238	603	11,3	3252
	Total Assets (\$ million)	565	196	652	12	3912
<i>Performance</i>	Return On Assets	3,8	5,9	20,2	-200	50
<i>Leverage and Taxes</i>	Taxes (% of Sales)	1,2	1,1	16,4	-160	25
	Gearing	1,4	1,3	1,5	-2,3	1,5
<i>Cash Flow</i>	Free Cash Flow	4,5	4,4	18,9	-2,4	18,7
USA						
<i>Firm Size</i>	Total Sales (\$ million)	793	407	832	150	4035
	Total Assets (\$ million)	975	410	933	105	5441
<i>Performance</i>	Return On Assets	4,3	5,2	22,5	-210	70
<i>Leverage and Taxes</i>	Taxes (% of Sales)	1,5	1,4	8,8	1,9	8,86
	Gearing	1,6	1,6	2,3	-1,9	4,5
<i>Cash Flow</i>	Free Cash Flow	5,3	5,2	19,3	-6,04	36
Asia						
<i>Firm Size</i>	Total Sales (\$ million)	180	165	213	152	1693

	Total Assets (\$ million)	265	56	278	19	1361
<i>Performance</i>	Return On Assets	3,7	3,1	17,2	-52,3	23
<i>Leverage and Taxes</i>	Taxes (% of Sales)	1,9	1,8	3,5	-1,6	4,1
	Gearing	1,5	1,7	2,4	-1,9	2,7
<i>Cash Flow</i>	Free Cash Flow	4,2	4,0	12,8	-99	36

Results: Univariate Analysis

The following table compares our sample of 413 Public to Private Transactions (PtoP) companies with a sample control (SC) of time-, country-, industry- and size-matched companies remaining public. *Panel A* depicts ownership based variables. They are based on the firms' blockholder structure on the OSIRIS and ORBIS (databases), before the going private announcement. *Panel B* shows accounting and stock based variables. We collect accounting data on the fiscal year (FY) date prior to the going private announcement.

***, **, * indicate that coefficients are statistically significantly different from zero at the 1%, 5%, and 10% levels.

Table 6: Europe

<i>Variables</i>	PtoP		SC		t value	z statistic
	Mean	Median	Mean	Median		
Panel A: Ownership and Control						
Manager Shares	0,65	1	0,85	1	-2,682***	-2,679***
Institutional Blockholder	0,61	1	0,75	1	-2,697***	-2,643***
Corporation Blockholder	0,58	1	0,72	1	-2,791***	-2,728***
Family Blockholder	0,64	1	0,84	1	-2,904***	-2,876***
Prior Takeover Interest	0,56	1	0,52	1	1,036	1,123
Panel B: Performance						
Taxation	1,21	1,17	1,18	1,08	1,026	1,103
Gearing	1,42	1,38	1,45	1,39	-1,115	-1,112
Free Cash Flow	4,55	4,43	3,77	3,70	2,169**	2,214**
Q ratio	0,83	0,81	1,45	1,42	-3,987***	-3,521***
Q1/Q2	0,91	0,87	1,05	1,03	-3,362***	-3,214***
Q1/Q3	0,86	0,85	1,12	1,09	-3,556***	-3,514***
LQ*HFCF	0,37	0,25	0,24	0,16	2,105**	2,034**
PER	15,14	14,52	26,78	25,92	-2,412**	-2,376**
Liquidity	1,45	1,38	2,09	1,96	-2,654***	-2,698***

SC: Sample control

Table 7: United Kingdom

<i>Variables</i>	PtoP		SC		t value	z statistic
	<i>Mean</i>	<i>Median</i>	<i>Mean</i>	<i>Median</i>		
Panel A: Ownership and Control						
Manager Shares	0,51	1	0,68	1	-2,426**	-2,387**
Institutional Blockholder	0,69	1	0,81	1	-2,215**	-2,134**
Corporation Blockholder	0,56	1	0,65	1	-2,196**	-2,102**
Family Blockholder	0,51	0	0,53	1	-1,102	-1,006
Prior Takeover Interest	0,57	0	0,55	1	1,126	1,101
Panel B: Performance						
Taxation	1,91	1,78	1,87	1,83	1,556	1,519
Gearing	1,23	1,18	1,26	1,20	-1,272	-1,217
Free Cash Flow	4,46	4,35	4,12	4,03	2,456**	2,418**
Q ratio	0,85	0,79	1,47	1,38	-4,056***	-3,875***
Q1/Q2	0,97	0,92	1,12	1,08	-3,915***	-3,723***
Q1/Q3	0,83	0,77	1,22	1,17	-3,992***	-3,834***
LQ*HFCF	0,35	0,33	0,27	0,25	2,056**	1,998**
PER	14,16	13,76	20,42	19,54	-2,385**	-2,426**
Liquidity	1,48	1,35	2,02	1,97	-2,582***	-2,569***

Table 8: USA

<i>Variables</i>	PtoP		SC		t value	z statistic
	<i>Mean</i>	<i>Median</i>	<i>Mean</i>	<i>Median</i>		
Panel A: Ownership and Control						
Manager Shares	0,54	1	0,62	1	-2,456**	-2,417**
Institutional Blockholder	0,72	1	0,92	1	-2,879***	-2,764***
Corporation Blockholder	0,64	1	0,89	1	-2,367**	-2,298**
Family Blockholder	0,49	1	0,52	0	-0,987	-0,873
Prior Takeover Interest	0,65	1	0,61	1	1,005	0,996
Panel B: Performance						
Taxation	1,50	1,45	1,48	1,32	1,251	1,197
Gearing	1,63	1,60	1,65	1,75	-1,145	-1,126
Free Cash Flow	5,26	5,21	4,83	4,53	2,746***	2,684***
Q ratio	0,77	0,71	1,53	1,44	-4,456***	-4,067***
Q1/Q2	0,85	0,78	1,15	1,09	-3,818***	-3,534***
Q1/Q3	0,81	0,72	1,26	1,21	-4,257***	-4,127***
LQ*HFCF	0,46	0,41	0,33	0,27	2,224**	2,158**
PER	13,24	12,76	28,65	27,54	-3,547***	-3,468***
Liquidity	1,45	1,26	2,01	1,89	-2,652***	-2,592***

Table 9: Asia

<i>Variables</i>	PtoP <i>Mean</i>	<i>Median</i>	EDC <i>Mean</i>	<i>Median</i>	t value	z statistic
Panel A: Ownership and Control						
Manager Shares	0,61	1	0,78	1	-2,662***	-2,687***
Institutional Blockholder	0,62	1	0,85	1	-3,005***	-2,954***
Corporation Blockholder	0,63	1	0,79	1	-2,458**	-2,397**
Family Blockholder	0,53	0	0,55	0	-0,789	-0,654
Prior Takeover Interest	0,65	1	0,62	1	1,205	1,117
Panel B: Performance						
Taxation	1,90	1,83	1,60	1,56	3,421***	3,217***
Gearing	1,54	1,72	1,82	1,75	-2,896***	-2,746***
Free Cash Flow	4,23	4,02	3,97	3,83	4,569***	4,327***
Q ratio	0,82	0,73	1,45	1,39	-4,787***	-4,654***
Q1/Q2	0,88	0,81	1,15	1,08	-3,956***	-3,872***
Q1/Q3	0,83	0,70	1,19	1,07	-4,362***	-4,317***
LQ*HFCF	0,42	0,40	0,28	0,25	2,178**	2,113**
PER	16,45	15,92	26,36	25,73	-1,831*	-1,729*
Liquidity	1,49	1,35	2,05	1,88	-2,685***	-2,695***

Results: Multivariate Results

The tables present potential determinants of our going private transactions by means of binary logit regressions. The response variable is coded 1 for going private firms and 0 for control firms.

***, **, * indicate that coefficients are statistically significantly different from zero at the 1%, 5%, and 10% levels.

Table 10: Europe

<i>Variables</i>	Model 1		Model 2		Model 3		Model 4	
	Coef	T-Value	Coef	T-Value	Coef	T-Value	Coef	T-Value
<i>Taxation</i>								
T	0.1957	1.5731	0.2132	1.6124	0.2065	1.5992	0.2167	1.5674
G	-0.5125	-1.0256	-0.5210	-1.0343	-0.5124	-1.0251	-0.5189	-1.0298
<i>Incentive Realignment</i>								
M	-2.0512	-2.6526***	-2.0629	-2.6423***	-2.1532	-3.9857***	-1.9862	-3.5043***
<i>Control</i>								
I	-1.7874	-3.3810***	-1.7683	-3.3553***	-1.7021	-3.3012***	-1.7752	-3.3793***
C	-1.9650	-2.6563***	-1.9556	-2.6410***	-1.9457	-3.5365***	-1.9525	-3.5398***
F	-2.3766	-4.0029***	-2.3697	-3.9897***	-2.3525	-3.9452***	-2.3847	-4.0206***
<i>Free Cash Flow</i>								
FCF	0.0215	2.2104 **	0.0193	2.2261**	0.0012	2.2564**		
<i>Growth Prospects</i>								
Q	-0.0123	-2.6875***						
Q1/Q2			-0.0231	-2.4567**				
Q1/Q3					-0.0414	-2.2113**		
LQ*HFCF							0.0342	1.9927**
<i>Takeover Defense</i>								
PTI	0.9121	1.0911	0.8993	1.2620	0.8784	1.1563	0.9172	1.2098
<i>Under-valuation</i>								
PER	-0.0474	-2.4237**	-0.0523	-2.4518**	-0.0727	-2.5572**	-0.0813	-2.5315**
L	-0.0327	-2.6653***	-0.0383	-2.6517***	-0.0390	-2.5663**	-0.0378	-2.6446***
Constant								
	1.5432	2.76***	1.5276	2.42**	1.4876	2.39**	1.4904	2.35**
Observations	86		86		86		86	
Pseudo R ²	22.12		21.54		21.34		21.31	
LR Chi ²	63.87***		57.43***		55.21***		55.14***	

Table 11: United Kingdom

Variables	Model 1		Model 2		Model 3		Model 4	
	Coef	T-Value	Coef	T-Value	Coef	T-Value	Coef	T-Value
Taxation								
T	0.2352	1.2551	0.2213	1.2656	0.2263	1.2409	0.2152	1.2729
G	-0.4523	-1.0434	-0.4612	-1.0325	-0.4424	-1.0561	-0.4360	-1.0754
Incentive Realignment								
M	-1.9956	-2.3675**	-1.9743	-2.3718**	-2.0212	-2.5223**	-2.0466	-2.5312**
Control								
I	-2.1214	-2.5611**	-2.1621	-2.5827***	-2.1545	-2.5763***	-2.2122	-2.6052***
C	-2.0025	-2.4572**	-2.0014	-2.4632**	-2.0114	-2.4859**	-2.1035	-2.5354**
F	-0.9738	-1.1276	-0.9620	-1.1358	-0.9603	-1.1317	-0.9542	-1.1461
Free Cash Flow								
FCF	0.0427	2.2156**	0.0399	2.2214**	0.0454	2.1983**		
Growth Prospects								
Q	-0.0214	-2.3326**						
Q1/Q2			-0.0285	-2.2378**				
Q1/Q3					-0.0279	-2.2432**		
LQ*HFCF							0.0193	2.3368**
Takeover Defense								
PTI	1.0188	1.2012	1.0157	1.2234	1.0213	1.1987	0.9259	1.1023
Under-valuation								
PER	-0.0989	-2.5816***	-0.0951	-1.9958**	-0.0972	-1.9875**	-0.0914	-1.9616**
L	-0.0571	-2.6125***	-0.0583	-1.9753**	-0.0567	-2.1153**	-0.0593	-1.9807**
Constant								
Constant	1.3567	2.59***	1.3276	2.45**	1.3095	2.43**	1.3172	2.41**
Observations								
Observations	108		108		108		108	
Pseudo R²								
Pseudo R ²	25.79		24.74		24.12		23.85	
LR Chi²								
LR Chi ²	62.54***		60.03***		58.53***		55.87***	

Table 12: USA

Variables	Model 1		Model 2		Model 3		Model 4	
	Coef	T-Value	Coef	T-Value	Coef	T-Value	Coef	T-Value
Taxation								
T	0.3357	1.1023	0.3462	1.1074	0.3214	1.0986	0.3127	1.0953
G	-0.0256	-1.6234	-0.0305	-1.5016	-0.0312	-1.5838	-0.3150	-1.5779
Incentive Realignment								
M	-1.7452	-2.3487**	-1.7562	-2.3518**	-1.6351	-2.4327**	-1.0328	-2.3412**
Control								
I	-1.8304	-2.9932***	-1.8524	-3.0247***	-1.8427	-3.0117***	-1.8621	-3.0397***
C	-1.7353	-2.4951**	-1.7470	-2.5123**	-1.7452	-2.5033**	-1.7322	-2.4819**
F	-0.7521	-1.1078	-0.7427	-1.1394	-0.7468	-1.1325	-0.7241	-1.1626
Free Cash Flow								
FCF	0.0073	3.5318***	0.0094	3.5127***	0.0225	3.1277***		
Growth Prospects								
Q	-0.0052	-3.2612***						
Q1/Q2			-0.0037	-3.3568***				
Q1/Q3					-0.0043	-3.3157***		
LQ*HFCF							0.0038	3.2968***
Takeover Defense								
PTI	0.5356	1.1003	0.5632	1.0257	0.5526	1.0531	0.7124	1.0067
Under-valuation								
PER	-0.0798	-2.5314**	-0.0813	-2.5231**	-0.0837	-2.5127**	-0.0791	-2.5373**
L	-0.0326	-2.8527***	-0.0318	-2.8578***	-0.0356	-2.8326***	-0.0401	-2.8052***
Constant								
Constant	1.89	2.72***	1.82	2.53**	1.77	2.48**	1.71	2.45**
Observations								
Observations	171		171		171		171	
Pseudo R²								
Pseudo R ²	39.87		38.75		38.59		38.21	
LR Chi²								
LR Chi ²	66.78***		64.35***		62.31***		60.15***	

Table 13: Asia

Variables	Model 1		Model 2		Model 3		Model 4	
	Coef	T-Value	Coef	T-Value	Coef	T-Value	Coef	T-Value
Taxation								
T	0.0092	3.0156***	0.0112	2.9734***	0.0217	2.9327***	0.0134	2.9634***
G	-0.0321	-2.7784***	-0.0417	-2.6933***	-0.0393	-2.7352***	-0.0403	-2.6831***
Incentive Realignment								
M	-0.0145	-2.4567**	-0.0208	-2.4219**	-0.0617	-2.4452**	-0.0236	-2.3921**
Control								
I	-1.5307	-2.8923***	-1.5520	-2.9253***	-1.5446	-2.9105***	-1.5212	-2.8844***
C	-1.3236	-2.4335**	-1.3305	-2.4476**	-1.3492	-2.4610**	-1.3126	-2.7287***
F	-0.6372	-1.0058	-0.5917	-1.0052	-0.6213	-1.0055	-0.6209	-1.0048
Free Cash Flow								
FCF	0.0356	2.8521***	0.0423	2.8027***	0.0292	2.8394***		
Growth Prospects								
Q	-0.0214	-2.8873***						
Q1/Q2			-0.0224	-2.8645***				
Q1/Q3					-0.0327	-2.6928***		
LQ*HFCF							0.0226	2.8754***
Takeover Defense								
PTI	0.6923	1.1782	0.7536	1.1244	0.7247	1.1536	0.7212	1.1231
Under-valuation								
PER	-0.0856	-2.2563**	-0.0922	-2.1893**	-0.0961	-2.1739**	-0.0483	-2.0057**
L	-0.0652	-2.6917***	-0.0661	-2.6832***	-0.0656	-2.6882***	-0.0672	-2.6786***
Constant								
Constant	1.82	2.68***	1.78	2.52**	1.72	2.48**	1.65	2.39**
Observations	48		48		48		48	
Pseudo R ²	37.65		36.56		36.12		35.83	
LR Chi ²	59.64***		57.32***		58.63***		57.97***	

Summary of Hypothesis and Expected Results

Table 14: Summary of Hypothesis and Expected Results

Hypothesis	Operationalization	Expected Results	Results
H1 : Tax Saving	Taxation (% of sales) Gearing (Financial Debt/ Shareholder Funds)	+ -	Not significant except for Asia Not significant except for Asia
H2 : Incentive Realignment	Managers Share	-	Significant and Negative
H3 : Control	Institutional Blockholder Corporation Blockholder Family Blockholder	- - -	Significant and Negative Significant and Negative Not significant except for Europe
H4 : Free Cash Flow	Free Cash Flow	+	Significant and Positive
H5 : Growth Prospects	Q Ratio	-	Significant and Negative
H6 : Anti- Takeover	Prior Takeover Defense (1= yes)	+	Not Significant
H7 : Under- Valuation	PER (Price Earning Ratio) Liquidity	- +	Significant and Negative Significant and Positive